# **DRAFT PERMIT**

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# STATE OF ARIZONA RECYCLED WATER INDIVIDUAL PERMIT FOR GRAY WATER NO. R-105946, PLACE ID 2019, LTF 82152

#### 1.0 AUTHORIZATION

In compliance with the provisions of Arizona Administrative Code (A.A.C.) Title 18, Chapter 9, Article 7 and A.A.C. Title 18, Chapter 11, Article 3 and amendments thereto, and the conditions set forth in this permit, CoreCivic Inc. is hereby authorized to operate a gray water reuse program for the beneficial use of gray water in accordance with the limitations, monitoring requirements and other conditions set forth in this permit and in the rules sited above.

This permit becomes effective on the date of the Water Quality Division Director's signature and will expire five (5) years thereafter, unless suspended or revoked pursuant to A.A.C. R18-9-B703(A)(1). Conditions established in this permit are designed to protect public health and safety, prevent contamination of groundwater through consumptive water use, and conserve potable water by using reclaimed resources. Water application rates authorized herein do not supercede the requirements of the Arizona Department of Water Resources.

#### 1.1 PERMITTEE INFORMATION

Facility Name: Eloy Correctional Facilities Complex Gray Water Treatment System

Facility Physical Address: 1705 E. Hanna Road, Eloy, Arizona

Pinal County

**Permittee:** CoreCivic, Inc.

Permittee Mailing Address: 5501 Virginia Way, Suite 110

Brentwood, TN 37027

Facility Contact: Ken Avant, Director, Facilities Management

**Emergency Phone No.:** (615) 263-3033

## 1.2 REUSE OPERATION

The Eloy Correctional Facilities Complex reuse operation collects gray water from showers, provides treatment (filtration and disinfection), and utilizes the reclaimed gray water for toilet flushing.

#### 1.3 REUSE SITE

Reuse Site Name: La Palma Correctional Center

5501 North La Palma Road

Eloy, Arizona

Reuse Site Contact: Anthony Roche, Facility Maintenance Supervisor

**Contact Number:** (520) 464-3396

**Latitude/Longitude:** 32° 48′ 48.4″ N / 111° 31′ 37.7″ W

**Legal Description:** Township 7S, Range 8E, Section 16, Gila and Salt River Baseline and Meridian

#### 1.4 AUTHORIZING SIGNATURE

Trevor Baggio	ore, Director		
Water Quality	Division		
Arizona Depa	rtment of Environr	nental Quality	
Signed this	day of	, 2020	

#### 2.0 RECLAIMED WATER USE

## 2.1 Reuse Site Description

CoreCivic, Inc. is authorized to operate a gray water treatment and reuse program which collects gray water from La Palma Correctional Center at the Eloy Correctional Facilities Complex. The Eloy Correctional Facilities Complex used to operate gray water reuse program at three correctional facilities: Red Rock Correctional Center, Saguaro Correctional Center and La Palma Correctional Center. The permittee has ceased the gray water reuse program at Red Rock Correctional Center and Saguaro Correctional Center and only operating the gray water system at La Palma Correctional Center.

La Palma Correctional Center housing unit at the correctional facilities has installed a separate gray water collection and treatment system. The system collects housing unit shower water only and then treats the collected water with primary and secondary plastic media filtration and tablet chlorination disinfection. The plastic media filtration and tablet chlorination units are located within a tank system buried below grade.

The treatment system also includes an adjustable automatic recirculation timer. The timer is used to control the level of treated gray water recirculation back through the filtration and chlorination units. The timer allows the system operator to provide adjustable levels of filtration and chlorination treatment to the gray water.

A pumping system conveys the treated gray water from the buried tank system into a reuse water piping system to toilet flushing facilities at each housing unit. Excess gray water not used for toilet flushing will be directed via gravity sewer to the Eloy Detention Center Wastewater Treatment Plant (Aquifer Protection Permit No. P-102749). The system is a closed-loop system with no gray water or associated wastes allowed to be discharged to the local area soils. Gray water will not be used for any on-site irrigation.

At an average use rate of 30 gallons per day per bed, 3,000 beds at La Palma Correctional Center, the gray water use is 90,000 gallons of gray water use per day.

The gray water system includes a tank system buried just below grade. The tanks are constructed from 5 mm Novapol polyethylene. Each gray water storage tank has a pump which is equipped with a discharge sample tap. The La Palma Correctional Center consists of twenty-seven (27) storage tanks with each tank with 6,600-gallon capacity. In accordance with Section 3.1, gray water quality samples shall be collected from the discharge sample taps.

# 3.0 ALLOWABLE PERMIT LIMITS AND MONITORING REQUIREMENTS

## 3.1 Gray Water Monitoring Table

CoreCivic, Inc. is authorized to use treated gray water as stated in Section 2.0 of this permit subject to the limitations specified in the following Tables and the monitoring requirements specified in 3.2, 3.3, and 3.4. Representative samples shall be collected from the discharge sample taps. Unless otherwise indicated, allowable permit limits are maximum values which shall not be exceeded.

Table I - La Palma Correctional Center

Sampling Point	Identification		Latitude	Longitude
1	La Palma tank #1A		32° 48′ 51" N	111° 31′ 31″ W
2	La Palma tank #1B		32° 48′ 51" N	111° 31′ 31″ W
3	La Palma tank #1C		32° 48′ 51" N	111° 31' 31" W
4	La Palma tank #2A		32° 48′ 51" N	111° 31′ 31″ W
5	La Palma tank #2B		32° 48′ 51" N	111° 31′ 31″ W
6	La Palma tank #2C		32° 48′ 51" N	111° 31′ 31″ W
7	La Palma tank #3A		32° 48′ 51" N	111° 31′ 31″ W
8	La Palma tank #3B		32° 48′ 51" N	111° 31′ 31″ W
9	La Palma tank #3C		32° 48′ 51" N	111° 31′ 31″ W
10	La Palma tank #4A		32° 48′ 51" N	111° 31′ 31″ W
11	La Palma tank #4B		32° 48' 51" N	111° 31′ 31″ W
12	La Palma tank #4C		32° 48′ 51" N	111° 31′ 31″ W
13	La Palma tank #5A		32° 48′ 51" N	111° 31′ 31″ W
14	La Palma tank #5B		32° 48′ 51" N	111° 31′ 31″ W
15	La Palma tank #5C		32° 48′ 51" N	111° 31′ 31″ W
16	La Palma tank #6A		32° 48′ 51" N	111° 31′ 31″ W
17	La Palma tank #6B		32° 48′ 51" N	111° 31′ 31″ W
18	La Palma tank #6C		32° 48′ 51" N	111° 31′ 31″ W
19	La Palma tank #7A		32° 48′ 51" N	111° 31′ 31″ W
20	La Palma tank #7B		32° 48′ 51" N	111° 31′ 31″ W
21	La Palma tank #7C		32° 48′ 51" N	111° 31′ 31″ W
22		La Palma tank #8A		111° 31′ 31″ W
23	La Palma tank #8B		32° 48′ 51" N	111° 31′ 31″ W
24	La Palma tank #8C		32° 48′ 51" N	111° 31′ 31″ W
25	La Palma tank #9A		32° 48′ 51" N	111° 31′ 31″ W
26	La Palma tank #9B		32° 48′ 51″ N	111° 31′ 31″ W
27	La Palma tank #9C		32° 48′ 51" N	111° 31′ 31″ W
Parameter	Discharge Limit	Units	Sampling Frequency	Reporting Frequency
E. Coli	15	MPN <sub>1</sub>	Quarterly	Quarterly <sub>2</sub>
E. Coli: Contingency3	15	MPN	Monthly	Quarterly (see footnote #3)

1MPN = Most Probable Number per 100 ml. For MPN, a value of <2.2 shall be considered to be non-detect.

<sup>&</sup>lt;sup>2</sup>The SMRFs will include pages for Monthly and Quarterly sampling frequencies. Whichever frequency does not apply at the time of reporting, indicate "Not Required" on the appropriate page.

<sup>3</sup>If any of the above units exceed the permit limit during the quarter, and the verification sample also exceeds the limit (see Section 3.3, Discharge Limit Violation Contingency), the sampling frequency shall be increased to monthly for a period of one year. Subsequently, if the unit does not exceed the limit for 12 consecutive months, it may be restored to quarterly sampling. If the unit exceeds the limit, and the verification sample also exceeds the limit a second time (either during the one-year monthly sampling period or thereafter), monthly sampling will be required for that unit for the remaining life of the permit.

# 3.2 Analytical Methodology

All samples collected for compliance monitoring shall be analyzed using Arizona state approved methods for wastewater. If no state approved method exists, then any appropriate EPA approved method shall be used. Regardless of the method used, the detection limits must be sufficient to determine compliance with the regulatory limits of the parameters specified in this permit. Analyses shall be performed by a laboratory licensed by the Arizona Department of Health Services, Office of Laboratory Licensure and Certification. For results to be considered valid, all analytical work shall meet quality control standards specified in the approved methods. A list of Arizona State certified laboratories can be obtained at the address below:

Arizona Department of Health Services Office of Laboratory Licensure and Certification 250 North 17th Avenue Phoenix, Arizona 85007 Phone: (602) 364-0720

# 3.3 Discharge Limit Violation Contingencies

Within 24 hours of receiving the results of a discharge limit exceedance (see Section 3.1), the Permittee shall collect and analyze a verification sample. If the result of the verification sample also exceeds the discharge limit, the Permittee shall immediately cease delivery of gray water to the toilet facilities from that unit and shall direct the flow to the wastewater treatment system. The permittee shall investigate to determine the cause of the violation, including sampling the gray water as feasible, inspection, testing and assessment of the current condition of all treatment components, review of process logs, reports, and other operational control information to identify the cause of the violation. The permittee shall notify the ADEQ Water Reuse Value Stream within five days of becoming aware of the violation.

Upon receiving two consecutive sample results which do not exceed the discharge limit, the permittee may resume delivery of gray water from the unit for use in the toilet facilities. However, as footnoted in Tables I, the sampling frequency for that unit shall be increased to monthly for a period of one year. If the unit exceeds the limit a second time (including the verification sample), either during the one-year monthly sampling period or thereafter, monthly sampling shall be required for that unit for the remaining life of the permit.

A written report shall be submitted to the ADEQ Water Reuse Value Stream within 30 days after becoming aware of the violation of a discharge limit (which also includes the exceedance of the verification sample) which documents all of the following:

- 1. A description of the violation and the cause;
- 2. The period of the violation, including exact date(s);
- 3. Action taken to remedy the violation;
- 4. Analysis results indicating that the violation has been remedied.

## 3.4 Records Retention [A.A.C. R18-9-B703(B)(6)]

Records of all monitoring activities and results (including all original strip chart recording for continuous monitoring instrumentation, calibration, electronic recording and maintenance records) shall be retained for five (5) years.

# 4.0 Management Practices/Controls

Use of treated gray water for toilet flushing shall be performed according to the following requirements:

- 1. The use of treated gray water for toilet flushing shall reasonably preclude human contact with gray water. Reclaimed gray water shall be treated by plastic media filtration and chlorination and shall meet discharge limits for fecal coliform (see Tables I in this permit) prior to delivery for use in toilets.
- 2. Users of the toilet facilities shall be informed that the toilets are being supplied with treated gray water.

3. The permittee shall prevent reclaimed gray water from coming into contact with drinking fountains, water coolers, or eating areas by providing a dedicated piping system that supplies only treated gray water to the toilet flushing facilities. Piping shall be inspected to ensure that no cross connections occur with other facilities.

# 5.0 Compliance

#### 5.1 Unauthorized Release of Gray Water

The permittee shall notify the ADEQ Water Reuse Value Stream within 24 hours after becoming aware of an unauthorized release of gray water or treated gray water to the land surface, surface water bodies, or to any area not authorized by this permit. This notification shall include:

- 1. A description of the release;
- 2. A description of the cause of the release;
- 3. The location and duration of the release including exact date(s) and time(s);
- 4. A plan of action which addresses remedial or mitigative action.

# 5.2 Reporting Location

Notifications of unauthorized releases and violations of discharge limits and permit conditions shall be submitted to:

Arizona Department of Environmental Quality

Water Reuse Value Stream

Mail Code: 5415B-1

1110 W. Washington Street

Phoenix, AZ 85007 Phone: (602) 771-4999

## 6.0 GENERAL PROVISIONS

## 6.1 Information Changes [A.A.C. R18-9-A705(B) and (D)]

If a change in the following information occurs, the permittee shall update the ADEQ Water Reuse Value Stream with such changes at least once annually by January 31:

- 1. Permittee,
- 2. Ownership,
- 3. Contact person,
- 4. Phone number, address, email address, or telephone number, or any combination of any of the above, for permittee or contact person,
- 5. Name of the use site,

For changes not described above, the permittee must submit a new Recycled Water Individual Permit application, as applicable.

## 6.2 Duty to Comply [A.R.S. §§ 49-221 through 49-263]

The permittee is notified of the obligation to comply with all conditions of this permit and all applicable provisions of A.R.S. § Title 49, Chapter 2, Articles 1, 2 and 3, A.A.C. Title 18, Chapter 7 and A.A.C. Title 18, Chapter 11, Article 3. Any permit non-compliance constitutes a violation and is grounds for an enforcement action pursuant to A.R.S. § Title 49, Chapter 2, Article 4 or permit amendment, suspension, or revocation.

## 6.3 Severability

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and

the remainder of this permit, shall not be affected thereby. The filing of a request by the Permittee for a permit action does not stay or suspend the effectiveness of any existing permit condition.

## 6.4 Other Laws and Rules

The issuance of this permit does not waive any federal, state, county, or local government rules, regulations, or permits with which this facility may have to comply.

#### 6.5 Permit Continuance [A.A.C. R18-9-B703(A)]

This permit is valid for five (5) years. The permit must be updated as prescribed by A.A.C. R18-9-A705. The terms and conditions of an expired permit are automatically continued pending issuance of a new permit if:

- 1. The permitted activity is of a continuing nature;
- 2. Permittee has submitted a timely (60 days before expiration date of permit) and sufficient application for a new permit; and
- 3. ADEQ is unable, through no fault of the permittee, to issue a new permit before the expiration date of the previous permit.

#### 7.0 REFERENCES AND PERTINENT INFORMATION

The terms and conditions set forth in this permit have been developed based upon the information contained in the following, which are on file with the Department:

1. Individual Recycled Water Permit for Gray Water application: April 22, 2020

2. Public Notice: xxxxxx